



Office of Business Transformation

CMO Point Paper

The Role of the DoD Business Enterprise Architecture (BEA) in Army Business Transformation

March 26, 2010

Final Version 2

1 Document Purpose

The purpose of this document is to provide an overview of the DoD Business Enterprise Architecture (BEA) and to describe why the BEA is important to Army business transformation. Due to the complexity of the subject, this is the first of three briefings to be given on architecture. Subsequent briefings will address the Army architecture in greater detail including the ERP solution architecture.

2 Introduction to the BEA

2.1 What is the BEA?

The BEA is the enterprise architecture for the DoD's Business Mission Area (BMA)¹ and defines DoD's business transformation priorities, business capabilities required to support those priorities, and the combinations of enterprise systems and initiatives that enable those capabilities.

The BEA is expressed through a set of integrated DoD Architecture Framework (DoDAF) products which includes formal end-to-end business process models, data standard, business rules, IT system functions, and linkages to laws, regulations, and policies. The DoD began developing the BEA in 2002, and has invested over \$500 million dollars building and maintaining it.

BEA content is developed by the stakeholders from the Core Business Missions (CBM)² in conjunction with DoD Components and Agencies. The Business Transformation Agency (BTA) coordinates requirements gathering, BEA development, integration and technical DoDAF solutions. The latest official release of the BEA – BEA 7.0 – was delivered on March 12, 2010.

2.2 What is the purpose of the BEA?

The purpose of the BEA and the associated transition plan is “to provide a blueprint for DoD business transformation that helps to ensure the right capabilities, resources and materiel are rapidly delivered to our warfighters: what they need, where they need it, when they need it, anywhere in the world. The BEA does this by guiding:

- Investment Management – Supports alignment of services, systems and solutions to the prioritized strategic capabilities of the Department;
- Interoperability - Permits approval authorities to demonstrate compliance with the BEA to achieve transformation objectives and implementation of interoperable business solutions.

¹ The DoD enterprise is defined by the four mission areas: Business Mission Area (BMA), Warfighting Mission Area (WMA), DoD portion of the Intelligence Mission Area (DIMA) and the Enterprise Information Environment Mission Area (EIEMA).

² The DoD BMA was conceptually realigned to a unifying framework with the release of the September 2005 Enterprise Transition Plan. This new framework is a capabilities-based approach to enterprise business planning resourcing, and execution, which consists of five Core Business Missions (CBMs).

2.3 How does the BEA enable better investment management?

As required by the FY2005 National Defense Authorization Act (NDAA), IT investments above \$1M must demonstrate BEA compliance. It is through compliance to the BEA and adherence to the Enterprise Transition Plan (ETP) that more than several thousand defense business systems, which have grown from local necessity rather than from enterprise design, will be rationalized within the DoD IT portfolio (DITPR) of business systems. Investments being reviewed after September 12, 2010, require certification to BEA 7.0.

2.4 Emphasis on end-to-end (E2E) business processes

Within the past several years, the BTA began to incorporate and emphasize end-to-end business processes within the BEA. Driving this change was the explicit acknowledgement by the Office of the Secretary of Defense of the value of cross-functional E2E business processes, spanning CBM boundaries for integrating activities. BTA has currently defined 15 end-to-end business processes (see Attachment A for high-level descriptions) and incorporated them into the BEA.

2.5 Why are E2E business processes important to business transformation?

Without a well-defined set of core E2E business processes that define enterprise management, the Chief Management Officer (CMO) runs the risk of sanctioning multiple projects that promote functional area efficiency over enterprise excellence. In other words, the Army may locally optimize domain functions while sub-optimizing from an Army enterprise perspective.

Why? It is the E2E enterprise perspective that enables today's BEA to better support the DoD's move from a functional-centered approach (finance, human resources, acquisition, logistics, health, etc.) to one that is fully integrated—*end-to-end...top-to-bottom—capable of meeting warfighter needs at best value*. In practice, architects throughout the Army and DoD are moving toward using these end-to-end processes as the framework for integration and architecture development.

2.6 How does the BEA relate to strategic guidance?

The BEA translates direction from DoD strategy (Quadrennial Defense Review, Strategic Management Plan, etc.) into products that are useful to strategic business users (e.g., Principal Staff Assistants and investment managers) and tactical users (e.g., enterprise system owners, system developers, system integrators) for guiding and constraining the IT investments.

2.7 How does the BEA align to the ETP and annual Congressional Report?

Major milestones for migrating DoD enterprise and key Component systems to the vision established by the BEA are outlined in the DoD Enterprise Transition Plan (ETP). Although the ETP is a separate document, the BEA and the ETP are integrated and cross-referenced. While the BEA and ETP provide a blueprint and roadmap, respectively, for defense business transformation, the Congressional Report provides a status against the previous year's ETP. Together these three products provide the Department's description of the target business environment (BEA), how to get to that target environment (ETP), and progress towards that target environment (Congressional Report).

3 Why the BEA is Important to Army Business Transformation?

3.1 The Army will extend the BEA to overcome stove-pipe perspectives

Army architectures today have been built to represent functional business domains and are being maintained by their respective functional sponsors (e.g., finance, logistics, acquisition, personnel, training, and health). The problem with this type of architecture development is that it has fostered optimized “stove pipe” perspectives rather than interoperable enterprise solutions.

By leveraging the BEA (and its end-to-end business processes), the Army is extending the BEA to incorporate Army unique requirements documented in the domain architectures and in doing so it will enable, for the first time, the integration of these stove-piped architectures. Forging these domain architectures into a single architecture through collaboration will significantly advance our ability to support integrated decision making by enabling visibility to a set of integrated requirements that span the enterprise and describe the Army business at a very granular level.

3.2 Building the Army Business Systems Architecture on E2E processes

While integrated domain architectures will enhance decision making and increase collaboration across business functions, they will not directly address the FY2010 NDAA requirement to minimize the number of COTS customizations and system-to-system interfaces so prevalent in today’s Army COTS ERP investments. Because COTS ERP solutions naturally view the enterprise in terms of end-to-end processes and industry best practices, they comport well to the BEA and to the Army’s stated direction for business transformation (FY2010 and FY2009 NDAA language concerning “business process re-engineering” and “end-to-end processes”).

In leveraging the business processes inherent to the COTS ERP as the foundation for the Army Business Systems Architecture, the Army will be positioned to satisfy the FY2010 NDAA requirements. As new business capabilities are evaluated against the Business Systems Architecture, and found to be compliant, they can be readily folded into the existing COTS ERP platform. Legacy systems will also be evaluated against the Business Systems Architecture to determine if they are candidates to be migrated to the COTS ERP.

This approach, adopting the COTS ERP processes as the foundation of the business systems architecture, not only prevents unnecessary proliferation of business systems, it enables efficient sun-setting of legacy applications, eliminates the need for many interfaces and improves referential integrity of data. Lastly, providing visibility of COTS capabilities earlier in the acquisition process will better inform business process re-engineering efforts, helping to avoid COTS customizations.

3.3 How do the BEA, Army architectures, and strategic guidance fit together?

As depicted in Figure 1, the BEA translates the DoD strategy into requirements that inform and constrain business operations. The BEA also provides a set of end-to-end business processes that enables integration of existing Army domain architectures. Once integrated these domain architectures will provide a rich set of rationalized business requirements useful for informing and developing “a well-

defined enterprise-wide **business systems architecture** and transition plan encompassing end-to-end business processes and capable of providing accurate and timely information in support of business decisions of the military department”.³

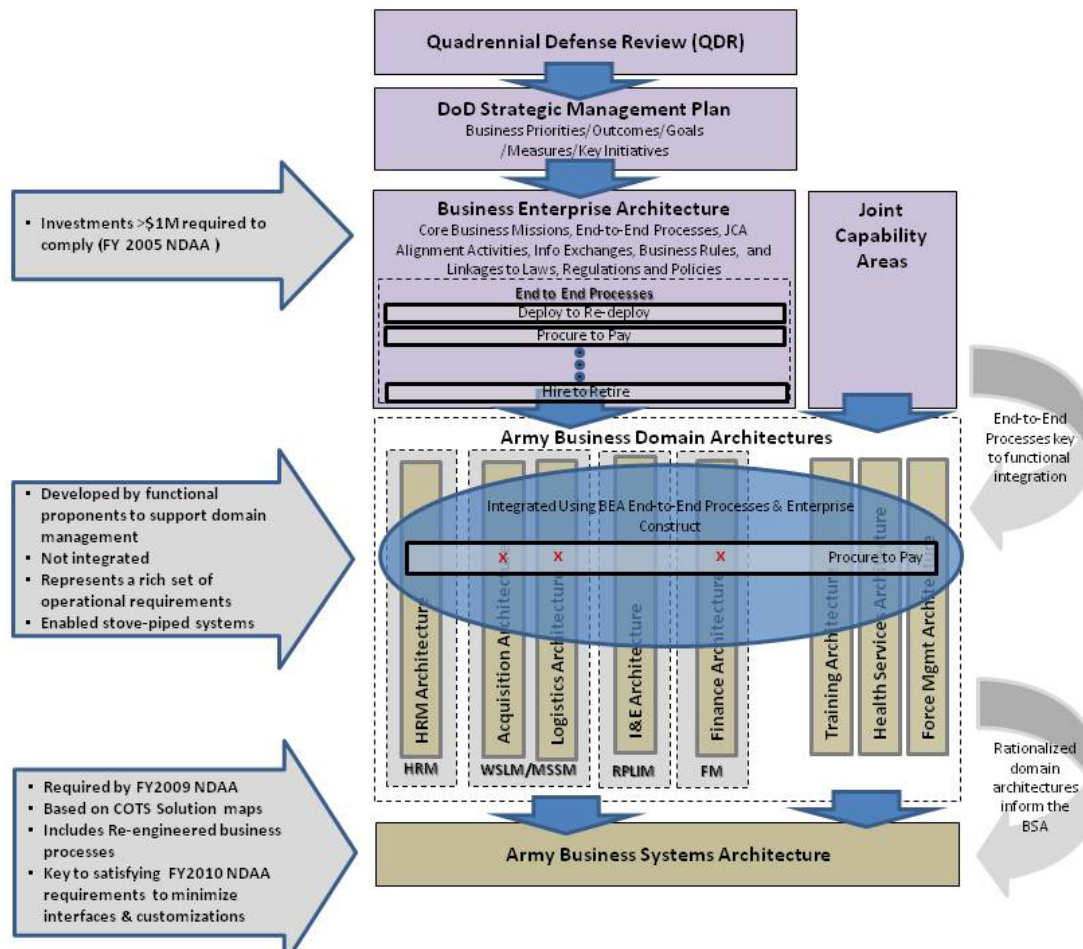


Figure 1, Army Architecture Environment

4 Conclusion

As the OBT develops the Army Business Systems Architecture mandated by the FY 2009 NDAA, it will ensure that Army business investments, including the COTS ERPs, are aligned with the BEA. In doing so, the Army will have an enterprise business architecture is that not only satisfies NDAA mandates but also provides a blueprint for Army business transformation.

³ FY2009 NDAA Section 908

Attachment A

End To End Processes

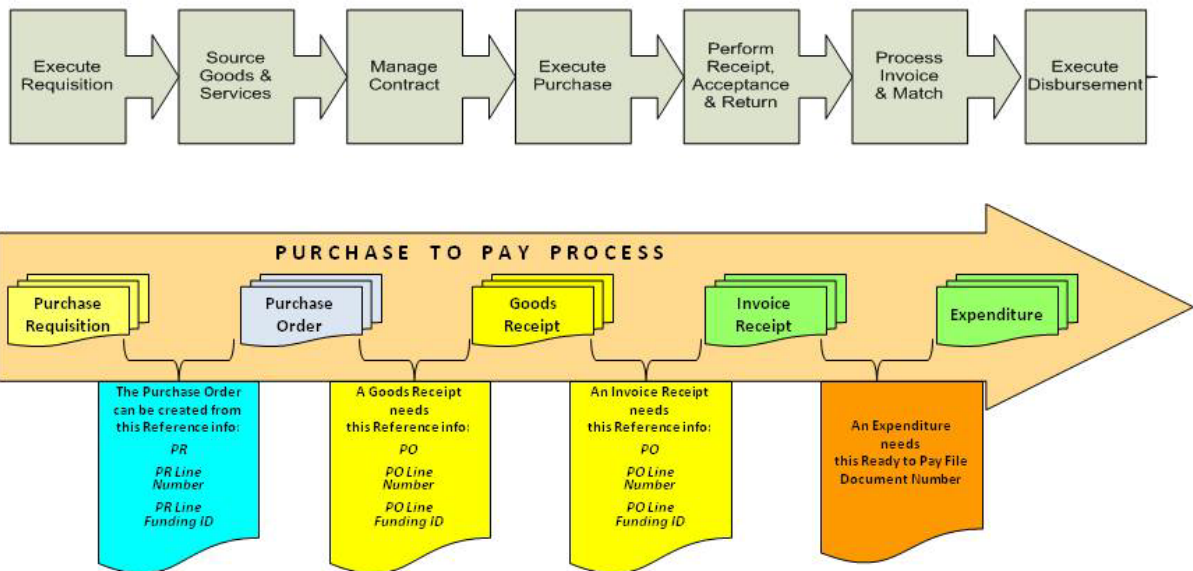
Name	Description
Acquire-to-Retire	Acquire to Retire encompasses all business functions necessary to obtain, manage, and dispose accountable and reportable property (capitalized and non-capitalized assets) through their entire life-cycle. This includes such functions as requirements identification, sourcing, contract management, purchasing, payment management, general PPE management and retirement.
Budget-to-Report	Budget to Report encompasses all business functions necessary to plan, formulate, create, execute against and report on the budget and business activities of the entity. This includes updates to the general ledger.
Concept-to-Product	Concept to Product encompasses all business functions necessary to effectively identify product needs, and plan and execute all necessary activities to bring a product from initial concept to full production.
Cost Management	Cost Management encompasses all business functions necessary to identify, collect, measure, accumulate, analyze, interpret, and communicate cost information to accomplish the many objectives associated with control, decision making, planning, and reporting. This includes Cost Accounting Procedures, Costing Methodology, Cost Assignment, Period End Close, and Reporting.
Deployment-to-Redeployment/Retrograde	Deployment to Redeployment/Retrograde encompasses all business functions necessary to plan, notify, deploy, sustain, recall and reset tactical units to and from theaters of engagement.
Environmental Liabilities	The End-to-End Environmental Liabilities Business Process encompasses all business functions necessary to identify environmental cleanup, closure, or disposal issues that represent an environmental liability of the Department, to develop cost estimates and expenditures related to the actions required to eliminate identified EL, and to report appropriate financial information about the environmental liability.
Hire-to-Retire	Hire to Retire encompasses all business functions necessary to plan for, hire, develop, assign, sustain and separate personnel resources in the Department of Defense.
Market-to-Prospect	Market to Prospect encompasses all business functions necessary to establish marketing plans, identify target markets, plan and define marketing campaigns, execute marketing campaigns, and measure and evaluate the performance of marketing campaigns for activities such as NAF, DECA, PX, FMS, Recruiting, Property Disposal, Military Depots, and TRI-CARE.
Order-to-Cash	Order to Cash encompasses all business functions necessary to accept and process customer orders for services and/or inventory held for sale. This includes such functions as managing customers, accepting orders, prioritization of orders, fulfilling orders, performing

	distribution, managing receivables, and managing cash collections.
Plan-to-Stock -- Inventory Management	Plan to Stock encompasses all business functions necessary to plan, procure, produce, inventory, and stock materials used both in operations and maintenance (O&M) as well as for sale.
Procure-to-Pay	Procure to Pay encompasses all business functions necessary to obtain goods and services. This includes such functions as requirements identification, sourcing, contract management, purchasing, payment management, and receipt/debt management.
Proposal-to-Reward	Proposal to Reward encompasses the life cycle of the grant process from the grantor perspective. It includes all the business functions necessary to plan, solicit, review, award, perform, monitor and close out a grant.
Prospect-to-Order	Prospect to Order encompasses all business functions necessary to generate and sustain sales by pursuing qualified leads, employing effective sales techniques, efficient order processing, maintaining customer relationships and providing support functions to include service, personnel and financial impacts.
Service Request-to-Resolution	Service Request to Resolution is the process of performing maintenance on materiel/assets requiring repair or complete rebuild of parts, assemblies, subassemblies, and end-items, including the manufacture of parts, modifications, testing, and reclamation as required. Depot maintenance serves to support all asset categories of maintenance by providing technical/enhancement assistance and performing required defined maintenance beyond their respective depreciable life. It also includes the process whereby buildings and other fixed facilities are maintained and renovated during their life cycle.
Service-to-Satisfaction	Service to Satisfaction encompasses all business functions necessary to determine service requirements, secure funding, contract with outside vendor, establish service and measure customer satisfaction.

Attachment B

Cross-Functional End-to-End Business Process

Procure to Pay encompasses all business functions necessary to obtain goods and services. This includes such functions as sourcing, contract management, purchasing, payment management and receipt/debt management.



Attachment C

Enterprise Construct to E2E Processes

	AME	RCE	MCE	HCCE	SICE
Acquire-to-Retire	X¹		X²		X³
Budget-to-Report	X	X	X	X	X
Concept-to-Product			X		
Cost Management	X	X	X	X	X
Deployment-to-Redeployment/Retrograde	X	X	X	X	X
Environmental Liabilities	X	X	X		X
Hire-to-Retire				X	X
Market-to-Prospect	X				
Order-to-Cash	X	X	X		X
Plan-to-Stock -- Inventory Management		X	X		X
Procure-to-Pay	X	X	X	X	X
Proposal-to-Reward	X		X		
Prospect-to-Order	X⁴		X	X	X³
Service Request-to-Resolution			X²		X³
Service-to-Satisfaction			X²		X³
BW/BI	X	X	X	X	X

X: Major Responsibility
X: Performs Function

- 1 Organization (OLC)
- 2 Materiel
- 3 Facilities Construction
- 4 Foreign Military Sales